

What is claimed is:

1. A semiconductor device comprising: a gate insulator film of a transistor formed in a predetermined region on a region of a first conductivity type; a gate electrode of said transistor formed on said gate insulator film; a diffusion layer of a second conductivity type formed on both sides of said gate insulator film on said region of the first conductivity type; and a diffusion layer of the first conductivity type formed on said region of the first conductivity type so as to surround said gate insulator film and said diffusion layer of the second conductivity type, said diffusion layer of the first conductivity type having a higher impurity concentration than said region of the first conductivity type,

wherein said diffusion layer of the first conductivity type is formed so as to be in contact with regions at both ends, in a direction of a channel width, of a region where the gate insulator film is formed.

2. A semiconductor device comprising: a gate insulator film of a transistor formed in a predetermined region on a region of a first conductivity type; a gate electrode of said transistor formed on said gate insulator film; a diffusion layer of a second conductivity type formed on both sides of said gate insulator film on said region of the first conductivity type; and a diffusion layer of the first conductivity type formed on said region of the first conductivity type so as to surround said gate insulator

film and said diffusion layer of the second conductivity type, said diffusion layer of the first conductivity type having a higher impurity concentration than said region of the first conductivity type,

wherein said diffusion layer of the first conductivity type is formed so as to be separated from said gate insulator film.

3. A semiconductor device according to claim 1, wherein said transistor is a high voltage transistor.

4. A semiconductor device according to claim 2, wherein said transistor is a high voltage transistor.

5. A semiconductor device according to claim 1, wherein said diffusion layer of the first conductivity type is a channel stopper region.

6. A semiconductor device according to claim 2, wherein said diffusion layer of the first conductivity type is a channel stopper region.

7. A semiconductor device according to claim 3, wherein said diffusion layer of the first conductivity type is a channel stopper region.

8. A semiconductor device according to claim 4, wherein said diffusion layer of the first conductivity type is a channel stopper region.